

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 4-5 are pending, Claims 1-3 having been canceled without prejudice or disclaimer and Claims 4-5 having been added by way of the present amendment.

In the outstanding Office Action Claims 1-3 were rejected under 35 U.S.C. § 112, second paragraph; and Claims 1-3 were rejected as being unpatentable over Merritt (U.S. Patent No. 5,318,611) in view of Chang et al. (EP 887670, hereinafter Chang).

In reply to the rejection under 35 U.S.C. § 112, second paragraph, Claims 1-3 have been canceled and new Claims 4-5 have been added. It is believed that Claims 4-5 comply with 35 U.S.C. § 112, second paragraph. However, if the Examiner disagrees the Examiner is invited to telephone the undersigned so that mutually agreeable claim language may be identified.

Claim 4 is directed to a method of fabricating an optical fiber. The method includes steps of dehydrating a porous core rod to reduce an OH group concentration in the porous core rod to 0.8 ppb or less by weight, and dehydrating the second porous cladding to reduce an OH group concentration to 50 ppm or less by weight. A feature of the optical fiber that is formed by this process, is that the optical fiber has a transmission loss at a wavelength of 1.38  $\mu\text{m}$  less than a transmission loss at a wavelength of 1.31  $\mu\text{m}$  both before and after exposure to a 1% H<sub>2</sub> atmosphere at room temperature for four days.

In contrast to amended Claim 4, both Merritt and Chang are references directed to methods for manufacturing of a low OH optical fiber, but neither reference addresses hydrogen resistance (change of a transmission loss in optical fiber when exposed to hydrogen, which lowers reactivity). While it is known that hydrogen resistance in optical fibers is related to the presence of glass structural defects in the optical fiber, a low OH


optical fiber (such as that disclosed in Merritt and Chang) does not necessarily have an excellent hydrogen resistance. In contrast to Merritt and Chang, the optical fiber of the invention defined by Claim 4 "has a transmission loss at a wavelength of 1.38  $\mu\text{m}$  less than a transmission loss at a wavelength of 1.31  $\mu\text{m}$  both before and after exposure to a 1% H<sub>2</sub> atmosphere at room temperature for 4 days." Merritt and Chang do not show the transmission loss after exposure to hydrogen.

Applicants believe that the manufacturing methods used in Merritt and Chang cannot achieve this feature. As previously discussed, a low OH optical fiber is not the same as an excellent hydrogen resistance optical fiber and consequently an optical fiber similar to that claimed in the present invention cannot be inferred (directly or indirectly) from Merritt or Chang by one of ordinary skill in the art. Accordingly, it is respectfully submitted that there would not be a reasonable expectation of success, and there is not a teaching or suggestion in the asserted references that would suggest combining the references to reasonably result in the presently claimed invention.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 4-5 is definite and patentably distinguishing over the prior art. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

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